Centre for Economic and Regional Studies
Institute of World Economics
Közgazdaság- és Regionális Tudományi Kutatóközpont
Világgazdasági Intézet

Challenges 235.

November 2019

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INTERNATIONALIZATION AND STRATEGIC ADAPTATION BY JAPANESE ENGINEERING FIRMS: THE CASE OF THE LNG SECTOR

Centre for Economic and Regional Studies - Institute of World Economics

Challenges Nr. 235 (2019) 17. November 2019

Internationalization and Strategic Adaptation by Japanese Engineering Firms:

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Internationalization and Strategic Adaptation by Japanese Engineering Firms: The case of the LNG sector[1]

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Abstract

Japanese engineering-procurement-construction (EPC) multinational companies in the global liquified natural gas (LNG) market since the early 1990 have been demonstrating worsening financial performance. Hit by continuing changes in their business environment both at home and abroad, strategic responses, such as opening new business lines, deemed insufficient. In early 2019, as a final step amidst continued losses, Chiyoda Corporation, a world leader EPC company in the global LNG market, announced that it will de-list from the Tokyo Stock Exchange. This article attempts to explore the changes in the factors that have driven Chiyoda's strategic moves over several decades and the reasons behind the industry consolidation that may end the story of an independent Chiyoda Corporation, while opening new opportunities for Japanese multinational companies in a dramatically changing world market.

JEL: L190

Keywords*:* Liquified Natural Gas, developmental state, Japan, engineering, push-pull factors

[1] ***Acknowledgement:*** This paper was written in the framework of the National Research, Development and Innovation Office (NKFIH) research project "Non-European emerging-market multinational enterprises in East Central Europe" (K-120053). The author acknowledges and give thanks to the Corvinus University of Budapest and the Pallas Athene Domus Educationis Foundation for their joint grant support to the author's research work including writing this article.

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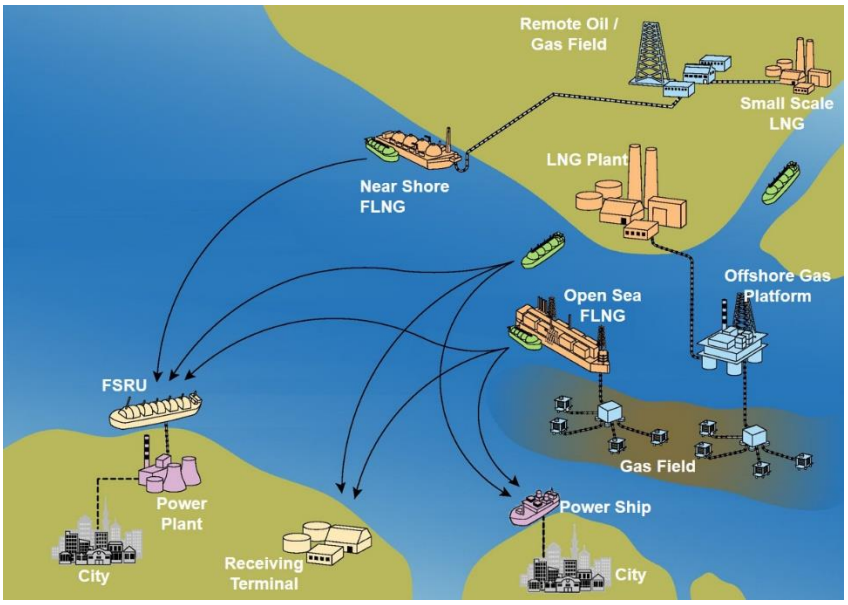
Abbreviations

- LNG – Liquified Natural Gas
- EPC – Engineering, Procurement, Construction
- MNC – Multination Company
- JGC – JGC Corporation (Japan Gas Corporation, member of JGC Holdings Corporation)
- TSE – Tokyo Stock Exchange Inc., member of JPX
- JPX – Japan Exchange Group Inc.
- MHI – Mitsubishi Heavy Industries Ltd.

1 Setting the scene

Japan pioneered importing liquified natural gas in the late 1960s, concurrently became world leader in the global LNG engineering market. "LNG is a techno-material reconfiguration of natural gas that enables it to be moved and sold beyond the continental limits of pipelines" (Bridge & Bradshaw, 2017, p. 215). From the upstream production of natural gas through electric power generation and household consumption, the LNG value chain involves intermediate processes of gas processing, liquefaction, shipping and regasification (Figure 1).

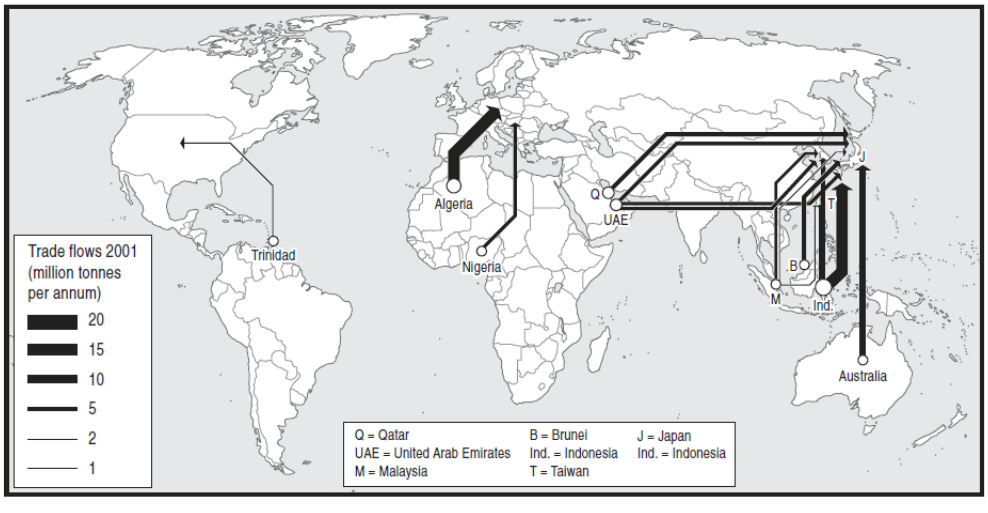
Figure 1. LNG value chain **(Chiyoda Corporation, n.d.)**



The global LNG sector is a multi-actor industry, involving governments, technology and engineering firms, traders, financiers, gas producers, distributors and end-users. "In recent years, LNG production processes and LNG usages are becoming diverse with new technologies for gas field development and increase of LNG demand" (Chiyoda Corporation, n.d.-b).

The history of Japanese LNG EPC companies is partly rooted in pre-war Japan and partly in Japan's post-WWII industrial development. Since the 1970s, following the period of the oil crises, these companies have become important actors in Japan's overall energy policy that pursued the overseas diversification of sourcing, as well as importing energy, most notably LNG (Nemetz & Vertinsky, 1984). Initially, Japan imported LNG from the US (Alaska, 1969). Later, with the build-out of LNG „floating pipeline" capacities, sourcing extended to gas-rich countries in South-East Asia, the Middle-East, later Africa, Russia and Australia. By the 2000s, Japan became the no.1. importer of LNG in the world (Bridge & Bradshaw, 2017), as shown in Figure 2.

Figure 2. Worldwide LNG Trade, 2001. **(Bridge & Bradshaw, 2017)**



Japanese LNG EPC companies became instrumental in building global LNG infrastructure, both serving Japan's and other countries' needs. Chiyoda Corporation and Japan Gas Corporation (JGC) became global leaders of their industry.

Building LNG supply chains, composed of a liquifaction plant, at the source, transport vessels and re-gasification plant at the receiving point, are multi-billion dollar projects. Traditionally, the global LNG infrastructure of „floating pipeline" projects with point-to-point business models, is based on long-term contracts that also require long-term engagement from its participants. Due to the need for long-term support at the project sites, as well as ongoing business development, Japanese LNG EPC firms established affiliates (subsidiaries) all over the world and became internationalized, as a special class of Japanese MNCs (Figure 3; Figure 4).

Figure 3. Worldwide affiliates of JGC **("JGC Corporation," n.d.)**

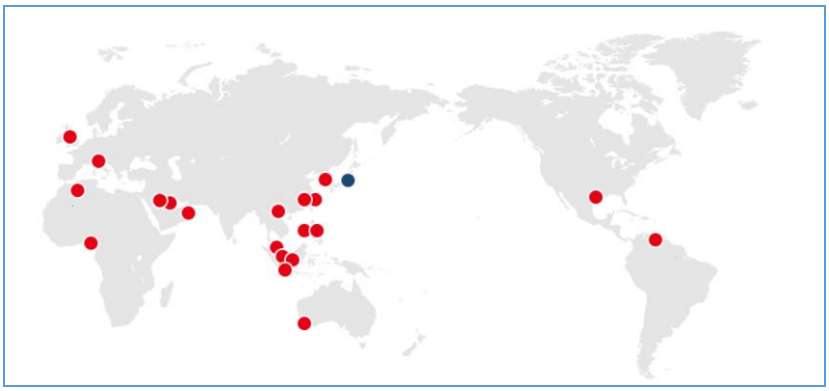
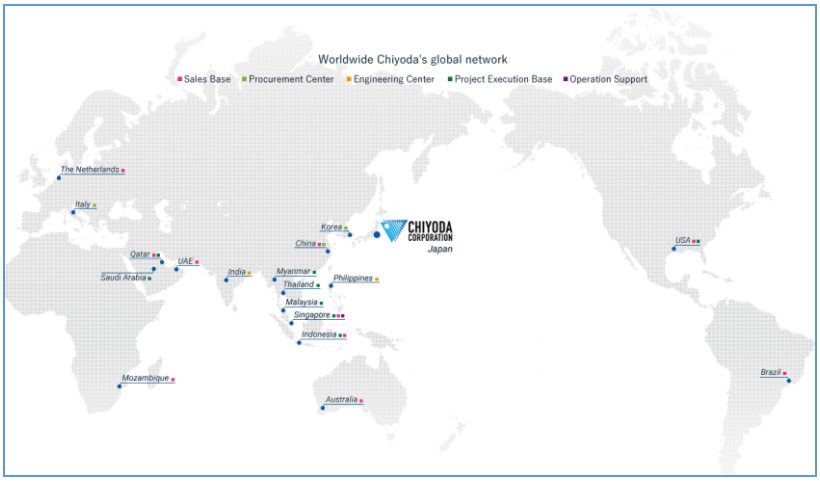


Figure 4. Worldwide network of Chiyoda **(Chiyoda Corporation, n.d.-b)**



After the long period of the prevailing developmental state that had offered safe business and moderate profits to the firms in Japan over several decades, following the burst of the economic bubble in the early 1990s LNG EPC MNCs have been facing market uncertainties and intensifying competition. South Korean, and later Chinese firms entered the market, enjoying strategic support from their home governments and financial institutions, similar to their Japanese counterparts decades before. Enhanced competition and maturing technologies have been offering political and economic alternatives to LNG exporting countries (Jiang, 2019).

2 The Japanese LNG sector

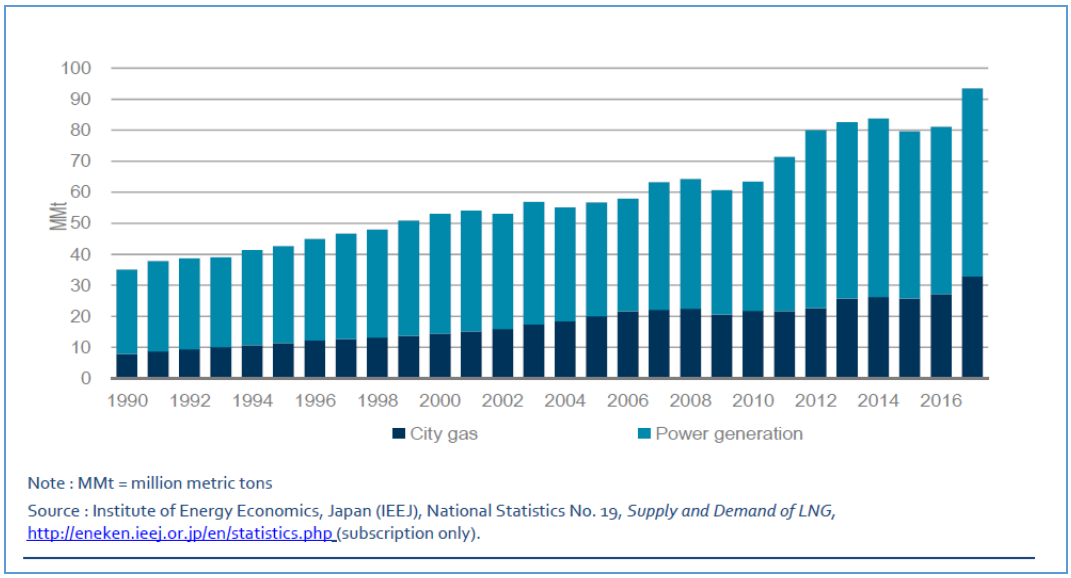
To put into context the subsequent theoretical and analytical sections on industry driving forces, this section provides a brief overview on the history of the Japanese LNG sector.

The oil shocks in 1973 and 1979 had profound and lasting impacts on the Japanese energy sector. Unprecedented oil price increase and the risk of unpredictable supply chain disruptions induced a complete rethinking of the energy strategy of Japan with over 90% exposure to imports in their energy supply (Nemetz & Vertinsky, 1984). The energy sector gradually transformed and oil was replaced with other sources of energy, primarily nuclear and natural gas. LNG became the major energy source for the coming decades, as it offered several advantages over other energy carriers: clean combustion, diversified global reserves and portfolio of suppliers. Japanese EPC MNCs, being integral part of Japan's energy policy played key role in implementing a secure LNG supply chain for their home country and later to other parts of the world. Their role was strongly aligned with Japan's post-WWII policies in South-East Asia aiming at assistance and cooperation (Nemetz & Vertinsky, 1984).

By early 2000, Japan became the largest LNG importer at over 60 million tons /year (Figure 5). After the Fukushima disaster, with the shut-down of nuclear power capacities, demand jumped to over 80 million ton/year (IEA & KEEi, 2019). This

exposure has recently been slightly decreasing, as, controversially, nuclear capacities in Japan are brought online again (Riviera, 2019).

Figure 5. Japan's natural gas demand, 1990-2017 **(IEA & KEEi, 2019)**



Nevertheless, LNG is foreseen to remain a key energy source in Japan, as indicated in the LNG market strategy by the Ministry of Economy, Trade and Industry (METI), (2016). The central element of the strategy is the government's goal to develop an LNG trading hub in Japan. The document explains that the main reason behind this strategic intent is the need to turn the policy focus from securing long-term stability and sufficient quantity to securing flexibility, resiliency and market utilization (ibid.).

3 Analysis of push-pull factors

3.1 Theory

The author proposes that internationalization of the Japanese LNG EPC MNCs over the past four decades has been driven by four main factors: (1) economic and social developments in Japan; (2) Japan's government lead export policy; (3) developments in the global LNG market and (4) other global geopolitical forces. Classifying these four factors within the „push-pull forces" theoretical framework (attributed by many

scholars to Dunning J. H., for example: (Dunning, 2000)), (1) and (2) can be considered as „push factors", while (3) and (4) are „pull factors".

3.2 Push factor: Japan's post-bubble economy

Japan's overall economic and social state are thought as key push factors driving the LNG EPC MNCs overseas moves. The economic stagnation and negative social tendencies in Japan during the pastthree decades had fundamental impacts on the performance of these companies.

Akram provides a thorough analysis of the Japanese economy for the past almost thirty years, starting from the end of the bubble period: Though, as of 2019, the Japanese economy is showing signs of recovery, the economic stagnation for over two decades had fundamentaly changed the business environment for most economic actors. The long period of stagnation was characterized by low inflation, growing public debt, fiscal deficit and declining global exports. Industrial production dropped due to lasting fall in global demand, in particular following the 2008 financial crisis. Recovery was weak due to tough competition even in home markets, e.g. by the entry of Chinese makers and high production costs at home, which have driven many Japanese corporations overseas (Akram, 2019, pp. 403–405).

Akram continues: „The social crisis in Japan, i.e. low fertility rate, aging population, as well as lack of opennes to immigration, resulted in reducing educated work power. Nikkei Asian Review, a market watch, reported serious delays and losses suffered by Japanese contractors due to lack of skills and shortage of educated manpower at home (Nikkei, 2018). Nevertheless, since the beginning of the 21st century the Japanese economy has been increasingly globalized shown by rising export and import figures, as well as Japanese MNCs increasing engagement in outward FDI" (ibid.).

Schaede claims that „during the past three decades Japan's political economy underwent a strategic inflection point, anchored on legal changes so profound that they are irreversible. These reforms thought to enable large companies to shift from post-war priority on sales and market share more towards profitability. The arrival of low cost Asian makers and dramatic changes in shareholder structures brought the period of developmental state to the end (Schaede, 2012, p. 167).

While Japanese exporters and MNCs are seeking new business opportunities in the global market, negative demographic trends at home hit such efforts severely.

Fitzgeral and Rowley analyze Japanese MNCs from the aspects of management practices that complicate or inhibit adaptation to the demands of global competition since the 1990s, as well as their responce to these challenges so that to improve competitiveness (Fitzgerald & Rowley, 2015).

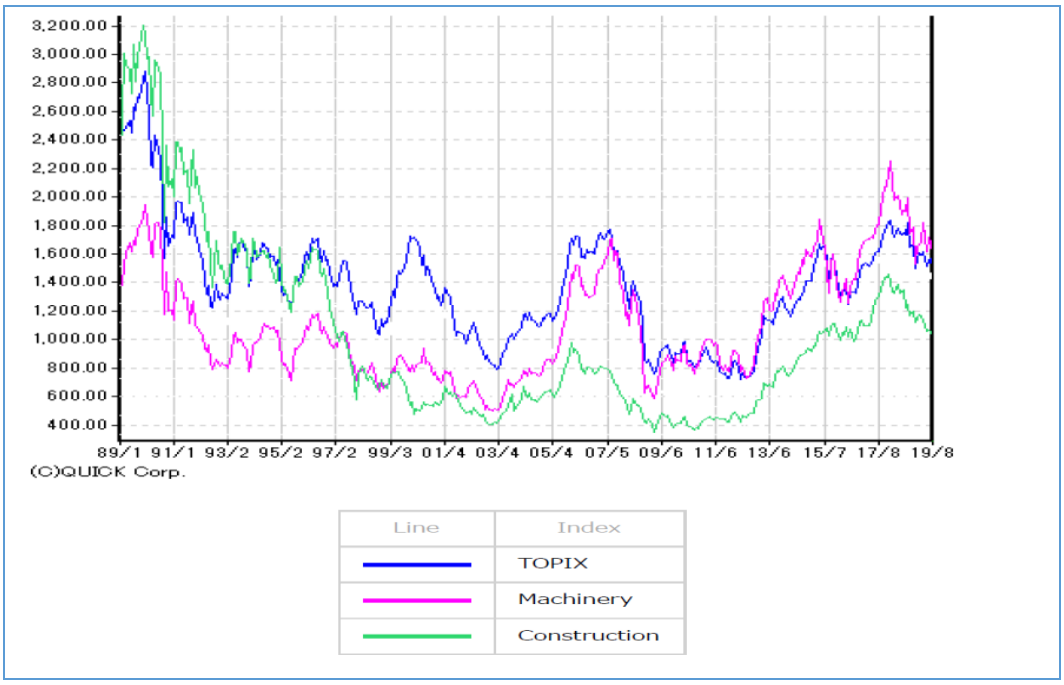
Changes in the energy policy of Japan driven by decarbonization policies, technology risk and energy security considerations, etc. also have substantial impact on the strategies of Japanese LNG EPC MNcs. Since the Fukushima disaster in 2011, Japan's energy policy, aimed at re-balancing the mix of energy sources, has had significant impact on the domestic gas market, LNG imports and, indirectly, Japanese EPC MNCs engaged in multinational LNG projects abroad. Due to changes in the energy-mix in power generation (from nuclear to gas), Japan's LNG imports had grown continuously and, in 2017 reached 85,6 million tons. However, as, controversially, nuclear capacities have started up again, Japan's LNG imports have been falling and, according to Energy Economics Japan, a think-tank, is estimated to fall to 82 million tons per year. While overall global production of natural gas is continuously rising, China is foreseen to soon topple Japan as No.1. LNG importer in the world (Riviera, 2019), global LNG infrastructures and trade are being re-oriented and Japanese LNG EPC MNEs are loosing the advantages of the drive by the home market.

To review the historical performance and outlook of the companies in the focus of this paper, the trends in share prices and price aggregates will be used as indirect indicators that imply economic performance of individual companies and sectors. 0 shows the historical Nikkei composit index for shares in the 1st Secion (TOPIX, selected shares), Construction and Machinery sections, between 1989 and 2019. Chiyoda and JGC belongs to the Construction section, MHI to the Machinery section.

TOPIX in the early 1990s about halved, then, with strong volatility, stayed around 50% of the level at the end of the 1980s. Although, these composites do not indicate differences between the performance of domestic, or export focused companies, it can

be seen that Construction was heavily hit and could recover to about 30% of the share price level of the late 1980s, only (Figure 6).

Figure 6. Historical (monthly) stock price index, 1989-2019, TSE **(source: JPX)**



Share prices of companies in the Machinery group, including MHI, were hit less heavily than those in the Construction section, and, though with strong volatility, by the end of the 2010s recovered to their level at the late 1980s. This sector may be seen to have best accomodated to changing conditions at home and the global markets.

3.3 Push factor: Abenomics

In 2012, Shinzo Abe became prime minister of Japan for the second time and, to reinvigorate the economy, introduced a set of policies, referred to as Abenomics, encompassing (1) accomodative monetary policy; (2) fiscal action, and (3) structural reforms, as discussed by Akram (Akram, 2019). Abenomics, so far, has mixed results amidst some worsening socio-economic trends. For example, Japan's labor force is continuously shrinking, and, to ensure increased prosperity, overall negative demographic trends is thought to be offset by focusing on advances in artificial intelligence, robotics and process automation, the Internet of Things, etc. (ibid.). Among these, Japan's strategy of infrastructure systems' export is a newly designed, state-led

initiative and institutionalized government-business collaboration (Yoshimatsu, 2017) This perhaps can be seen as a new phase of the developmental state policy in Japan. Pursuing export of quality infrastructure is communicated to serve twin goals: creating a new growth engine to revitalize Japanese economy and strengthening strategic links with Asian countries, balancing China's regional influence, as argued by Akram, as well as communicated by the Japan Industry Association (Keidanren, 2015).

Responding specifically to changes in the global LNG market, in 2016 the Japanese Government anounced a strategy with a game changing initiative to develop an LNG trading hub in Japan (METI, 2016).

3.4 Pull factor: The international LNG market

In the 2000's the global LNG market is undergoing profound changes creating growing demand for LNG engineering services globally. Demand for natural gas has been increasing, as climate policies pursue reducing GHG emissions and therefore favour natural gas over other fossil fuels with higher CO2 emissions. Also, as the US shale gas is entering the market, new LNG infrastructures are built turning the „floating pipeline" model into a geographically more complex global gas market, (Bridge & Bradshaw, 2017). Bridge and Bradshaw present how the global LNG sector has been evolving from the „floating pipeline" model of point-to-point, bi-national flows governed by long term contracts, to a geographically and organizationally more complex production network (Bridge & Bradshaw, 2017). The market that had been orchestrated by limited number of sellers and buyers are being transformed into a more competitive, multiactor, liquid market. From the perspective of the Japanese LNG EPC MNCs, the age of the developmental state is over, the driving role of direct and indirect government support is taken over by the forces of the global market, requiring substantial changes in corporate strategies. Seeking for business opportunities unrelated to supplying the gas market in Japan, cooperating internationally (Nikkei, 2017), as well as engaging overseas vendors seem feasible options. In addition, changes in the overall global business environment seem to induce drastic changes in the structure of corporate governance and ownership, as well, hitherto unknown for Japanese firms (Bessho, n.d.). Global market changes may induce (1) cooperation among Japanese companies, for

example in new technology development and application, such as MHI and Chiyoda in hydrogen energy systems (The Japan Times, 2014); (2) industry consolidation, such as the foreseen takeover of Chiyoda by MHI (KYODO, 2019) and (3) newly designed role by the Japanese government in pursuing overseas business of Japanese LNG EPCs (Tahara-Stubbs, 2017). The intensifying mergers and acquisitions market in Japan may indicate a new growth era for Japanese corporations, including growing number of take-overs by foreign firms (Bessho, n.d.).

3.5 Global pull factors

Abenomics and the export strategy of quality infrastructure seem to have already resulted in visible results, for instance in Vietnam (Liao & Dang, 2019): to counterbalance Chinese influence, Japanese companies are becoming preferred options in assigning government contracts in infrastructure projects (Murashkin, 2018).

On another account, industry leader Japanese companies are invited to join various international consortia that target development projects (USTDA, 2018) and that challenge China's „belt and road" initiative, as shown by a case of a US-Australia-Japan cooperation in developing and financing infrastructure projects in South-East Asia (Kodachi, 2019).

An emerging new world order and global political economy have been creating a new competitive dynamics between China and Japan. While international financing offers cooperative opportunities (Jiang, 2019), infrastructure projects are becoming the territory of fierce competition. As Yoshimatsu argues, …while major arenas of Sino-Japanese struggle are maritime security affairs and political leadership in managing regional affairs, infrastructure development is emerging as a new source of rivalry…. (Yoshimatsu, 2018). The collision of reborn „developmental state" policies in China and Japan in the transport industry in Indonesia might serve as reference to other infrastructure businesses, including LNG: the circumstances how the contract of the Jakarta–Bandung high-speed railway project was assigned (China won the $6 billion project) represents the rivalry in the provision of regional institutions and programs to sustain infrastructure development. It is also argued that in committing to infrastructure development, China and Japan were required to pay due attention to close connections

with existing multilateral development banks and responses to the needs of a target government. Moreover, it contends that both states regarded commitments to infrastructure development as crucial vehicles to enhance political leverage and means to sustain the national economy and diffuse specific ideals for development (ibid.).

4 The Japanese LNG EPC MNCs

All three LNG EPC MNCs, Chiyoda Corporation, Japan Gas Corporation and Mitsubishi Heavy Industries are integrated in Japan's Post WWII keiretsu system and key actors in Japan's development policies in the energy sector at home and abroad. Their history and furture prospects in the context of push-pull factors are reflections on broader trends of economic developments in Japan, as well as the policies of the Japanese developmental state.

4.1 Chiyoda Corporation

Chiyoda, founded in 1948, played important role in the post-war rebuilding of industrial Japan. Since the 1970s, it has become a leading integrated engineering company present in the global oil and gas market, especially in the field of LNG. By the 1990s its market share reached 40% in global LNG plant capacity construction. Apart from LNG, Chiyoda already has business interests in the oil, chemical, petrochemical, metal, and the medical sectors, but the firm recently extended its activities to the renewable energy and the environmental industries, as well (Chiyoda Corporation, n.d.-a). Sustainability became the central element of the company's business culture, as its corporate philosophy has been built on the slogan „Mirai Engineering" („future/futuristic – in English). Moreover, it communicates to its shareholders and customers that it looks to maintain „Energy and the Environment in Harmony". Following this principle, Chiyoda has been active in developing „game changing" technologies, such as CO2 capture and storage, as well as production of hydrogen, this latter considered as a feasible energy storage alternative to battery technology. The importance of hydrogen and hydrogen technologies is highlighted in a recent report by the IEA: The time is right to tap into hydrogen's potential to play a key role in a clean,

secure and affordable energy future (IEA, 2019, p. 13). These technology advancements are important assets of the company, however, they have not yet begun to generate revenues.

Chiyoda's stocks have been traded on the Tokyo Stock Exchange since 1961 in the Construction section. Also, Chiyoda Corporation ADR (American Depository Receipt) has been traded on NASDAQ since 2011 ("About Chiyoda Corp ADR (CHYCY)," n.d.) . While maintaining positions in the global LNG market and diversifying businesses into the renewable energy and environmental sectors, financial results have been deteriorating since the early 1990's with continuously falling share prices (0). A Chiyoda executive, interviewed by the author of this article and requesting not to disclose his name, explained that the decline in financial performance, among other reasons, is due to Chiyoda' efforts to maintain its share in an increasingly competitive market even by sacrifycing profits by underpricing its projects. As shown in Figure 7. since 2013 Chiyoda's share prices continued to decreaase and by 2018 dropped about 70%.

Figure 7. Chiyoda share price movement, 2013-2019, TSE **(source: JPX)**

In 2019, MHI, its largest shareholder and lender, concurrent with a major capital injection, appointed its own managers to key management positions of Chiyoda (KYODO, 2019). Taking control in the management is usually the beginning of a takover of the company, presumably a well designed strategic move by MHI. Not seen able to survive as an independent company, Chiyoda became targeted for takeover (KYODO, 2019). Finally, Chiyoda also perhaps obliged by TSE regulations, entered the procedures of de-

listing, this way avoiding futher compulsory sharing of company information and chaotic trading in its shares.

4.2 JGC

JGC, the first engineering firm in Japan, was founded in 1928. Its business grew into full-scale operation during the post-war reconstruction period, mainly in the refinery sector. JGC started overseas expansion in the 1960s and, by the early 1990s, became a leading player in the global petroleum refining, petrochemical and LNG markets. JGC has been listed in TSE.

Later, accomodating to deteriorating economic and market conditions at home, JGC focused on businesses overseas, diversified and succeeded in securing its positions in the world market in various sectors, including LNG ("JGC Corporation," n.d.). Apart from traditional energy, refinery and petrochemical fields, JGC has been successfuly expanding into overseas renewable markets, such as solar, keeping its leading positions by seeking cooperation with other market players in the newly emerging global LNG industry, in particular in North America.(Nikkei, 2017).

JGC's stock has been traded in the Tokyo Stock Exchange in the Construction section and in Germany since 1963 ("About JGC Corp. (1963)," n.d.). . Despite stabilized business performance, its share prices more that halved between 2013-2016, but has stabilized since (Figure 8).

Figure 8. JGC share price movement, 2013-2019, TSE, **(source: JPX)**

4.3 MHI

The MHI Group, headed by Mitsubishi Heavy Industries Ltd., is a 130 year old integrated technology, engineering, manufacturing and construction holding company, with its history rooted in the Meiji reform period. MHI, with multiple business lines, envisions to solve society's issues through global integrated engineering, ensuring long-term wellbeing and security for humanity (MHI, n.d.). MHI is an integrated group of companies with extremely diversified businessess: energy, shipbuilding, automotive, aircraft and outer space, industrial machinery, infrastructure, home appliances, healthcare, transport, environment, etc. MHI, a leading developer and applier of innovative technologies (The Japan Times, 2014) is well positioned to play central role to consolidate the Japanese LNG engineering industry. Chiyoda, holder of innovative „game changing" technologies, such as carbon capture and storage and hydrogen infrastructure, etc., might be a valid candidate to drive for takeovers (KYODO, 2019) and industry consolidation.

MHI, has been listed on the Tokyo Stock Exchange since 1950 in the Machinery section. Between 2013 and 2015 MHI share prices increased slightly (Figure 9). In 2015, sales were steadily growing, however, due to worsening financial perfomance, share prices dropped to about half of their earlier level (MHI, 2016). Over the past three years, with slightly growing sales and assets, share prices have stabilized (MHI, 2018).

Figure 9. MHI stock price movements, 2013-2019, TSE, **(source: JPX)**

5 Discussion and conclusions

Japanese EPCs in the global LNG infrastructure industry are special groups of MNCs, which, over the past three decades, have been facing dramatic changes in their business environment, both at home and abroad. Chiyoda Corporation and Japan Gas Corporation are the most important representatives of this group of MNCs, with business history of over 80 and 100 years, respectively. The two companies have followed somewhat similar routes to respond to the challenges of changing business conditions internationally and at home, but with different success. JGC seems to be surviving, but Chiyoda has started de-listing from the Tokyo Stock Exchange and may face takeover by Mitsubishi Heavy Industries, an integrated engineering and manufacturing company, a relatively late-comer in the LNG sector.

In the previous chapters it was argued that the changes in the four influencing factors, discussed within the push-pull theory framework, have substantially changed the overall business environment of LNG EPC MNCs. The strategic responses to these changes by Chiyoda and JGC included efforts to improve operational efficiency, diversify their businesses towards the renewable energy sectors, i.e. wind and solar power, more focus on sustainability (Chiyoda Corporation, n.d.-c) and allocating more resources to developments of new technologies, such as hydrogen technologies, in the case of Chiyoda.

Academic research and various analyses by the media suggest that a new set of pull and push factors, which are decisive in framing the circumstances to strategic design of Japanese LNG EPC MNCs, require new industrial organization and configuration of skills and capabilities that can underpin competitiveness in a dramatically changed, competitive market. It can be concluded that industry consolidation lead by powerful, indegrated Japanese companies, like MHI, might be the answer to the new challenges faced by Japanese LNG EPC MNCs. As these MNCs become more flexible to cooperate with their peers overseas, they may be exposed to industry consolidation at the international level that opens the way to mergers and acquisitions. Therefore, on a longer term, even foreign ownership in traditionally Japaneses engineering firms might become a feasible scenario. These prospects for the LNG EPC MNC sector align well with

some analyst reports on overall trends in Japan's economy. Kensaku Bessho, a senior executive of Mitsubishi UFJ Morgan Stanley Securities envisions intensifying M&A engagment by Japanese companies, both at home and abroad (Bessho, n.d.). Bessho argues that these expectation are underlined by several factors: demographic and economic trends in Japan, encouraging government policies and the relative cash – richness of Japanese investors, this latter due to favourable restructuring policies after the 2008 global crisis.

That regards possible inward FDI, Bessho points out that activist foreign investors learned from the past and become better attuned to the Japanese market. More recently, they have taken a friendlier approach by presenting themselves as advocates for all shareholder: „this has led to more favorable coverage in the Japanese media, and some notable successes" (ibid.). Japanese companies also became more receptive towards private equity investments, with several global private equity firms recently acquiring Japanese businesses with multy-billion dollar investments. As a conclusion, likewise other industries in Japan, the changing socio-economic and market environments at home and abroad are seen to induce major industry reorganization and consolidation in the LNG EPC MNE sector, as well. In this regard, the findings of the Bessho analyst report seems to align well with the propositions in this article.

Beyond market forces at home and abroad, the strategic drive of the Japanese government seems to become another major factor to influence the future of Japanese LNG EPC MNCs. The goverment strategy for LNG market development, especially the intent to develop an LNG trading hub in Japan in some sense goes well beyond the horizon of the developmental state seen many decades ago (METI, 2016). The government document explains that this strategy has been induced by 6 major forces: (1) the shale revolution and LNG exports from the US; (2) growing global demand for LNG; (3) changes in the global structure of LNG supply; (4) enhancement of market oriented behaviors of Japanese LNG buyers due to the liberalization of electricity and gas markets; (5) worldwide trend in the integration of natural gas markets, and (6) accelerated overseas initiatives to create markets for LNG trading (METI, 2016).

The author of this article suggests that with this strategy a new phase of the evelopmental state prevails, when the facilitating support by the Japanese government for Japanese companies is extended to influencing the evolution of a whole global industry. With this strategy the Japanese developmental state steps beyond its regional ambitions and enters the global competition in shaping the global LNG market.

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